

CLAIMS

1. A method for operating a node in a label switched network, said method comprising:

5 receiving a request to establish a proposed label switched path through said node;

determining that a bandwidth requirement of said proposed label switched path cannot currently be met;

after receiving said request and prior to expiration of a time period, receiving information from one or more downstream nodes along said proposed label switched path

10 identifying one or more currently configured label switched paths that have been preempted downstream; and

after expiration of said time period, selecting one or more label switched paths to preempt from among currently configured label switched paths, said selecting being based at least in part on said received information.

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2. The method of claim 1 further comprising:

determining said time period responsive to a number of hops between said node and a destination of said proposed label switched path.

3. The method of claim 1 further comprising:

sending a message indicating acceptance of said proposed label switched path prior to expiration of said time period.

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4. The method of claim 1 wherein said selecting favors local preemption of said currently configured label switched paths that have been preempted downstream

5. The method of claim 1 wherein said one or more label switched paths
10 selected for preemption have a lower priority than said proposed label switched path.

6. A computer program product for operating a node in a label switched network, said computer program product comprising:

code that receives a request to establish a proposed label switched path through
15 said node;

code that determines that a bandwidth requirement of said proposed label switched path cannot currently be met;

code that, after receiving said request and prior to expiration of a time period, receives information from one or more downstream nodes along said proposed label

switched path identifying one or more currently configured label switched paths that have been preempted downstream;

code that, after expiration of said time period, selects one or more label switched
5 paths to preempt from among currently configured label switched paths, said selecting being based at least in part on said received information; and

a storage medium for storing the codes.

7. The computer program of claim 6 further comprising:

10 code that determines said time period responsive to a number of hops between said node and a destination of said proposed label switched path.

8. The computer program product of claim 6 further comprising:

code that sends a message indicating acceptance of said proposed label switched
15 path prior to expiration of said time period.

9. The computer program product of claim 6 wherein said code that selects favors local preemption of said currently configured label switched paths that have been preempted downstream

10. The computer program product of claim 6 wherein said one or more label
switched paths selected for preemption have a lower priority than said proposed label
5 switched path.

11. Apparatus for operating a node in a label switched network, said apparatus
comprising:

means for receiving a request to establish a proposed label switched path through
10 said node;

means for determining that a bandwidth requirement of said proposed label
switched path cannot currently be met;

means for, after receiving said request and prior to expiration of a time period,
receiving information from one or more downstream nodes along said proposed label
15 switched path identifying one or more currently configured label switched paths that have
been preempted downstream; and

means for, after expiration of said time period, selecting one or more label
switched paths to preempt from among currently configured label switched paths, said
selecting being based at least in part on said received information.

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12. The apparatus of claim 11 further comprising:

means for determining said time period responsive to a number of hops between said node and a destination of said proposed label switched path.

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13. The apparatus of claim 11 further comprising:

means for sending a message indicating acceptance of said proposed label switched path prior to expiration of said time period.

10 14. The apparatus of claim 11 wherein said means for selecting favors local preemption of said currently configured label switched paths that have been preempted downstream

15 15. The apparatus of claim 11 wherein said one or more label switched paths selected for preemption have a lower priority than said proposed label switched path.

16. Apparatus for operating a node in a label switched network, said apparatus comprising:

a processor; and

a memory device storing instructions for execution by said processor, said instructions comprising:

code that receives a request to establish a proposed label switched path
5 through said node;

code that determines that a bandwidth requirement of said proposed label switched path cannot currently be met;

code that, after receiving said request and prior to expiration of a time period, receives information from one or more downstream nodes along said proposed
10 label switched path identifying one or more currently configured label switched paths that have been preempted downstream; and

code that, after expiration of said time period, selects one or more label switched paths to preempt from among currently configured label switched paths, said selecting being based at least in part on said received information.

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17. The apparatus of claim 16 wherein said instructions further comprise:

code that determines said time period responsive to a number of hops between said node and a destination of said proposed label switched path.

18. The apparatus of claim 16 wherein said instructions further comprise:

code that sends a message indicating acceptance of said proposed label switched path prior to expiration of said time period.

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19. The apparatus of claim 16 wherein said code that selects favors local preemption of said currently configured label switched paths that have been preempted downstream

10 20. The apparatus of claim 16 wherein said one or more label switched paths selected for preemption have a lower priority than said proposed label switched path.